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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,601	11/03/2008	William Jones	ACH-3087 US	2182

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Albemarle Netherlands B.V.
Patent and Trademark Department
451 Florida Street
Baton Rouge, LA 70801

EXAMINER	
FORREST, MICHAEL	
ART UNIT	PAPER NUMBER
1793	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,601	JONES ET AL.	
	Examiner	Art Unit	
	MICHAEL FORREST	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 3 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/915,704. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims completely encompass the claims of the '704 application. Claim 1 of the '704 application discloses a method comprising preparing a physical mixture of Ca or Ba compounds(divalent metal compound 1 of the instant claim), Al compounds(trivalent metal compound 2 of the instant claim), and a third metal compound comprising a metal selected from the group consisting of La, Ti, and Zr (analogous to compound 3 of the instant claim).

Regarding Claim 3, Claim 1 of the '704 application further discloses aging without anionic clay being formed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 provides for the use of the oxidic catalyst composition of claim 12 in a fluid catalytic cracking process, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 14 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 15 provides for the use of the catalyst particle of claim 13 in a fluid catalytic cracking process, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under

35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-2, 4-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Dieckmann et al(US Patent 5,565,181).

Dieckmann teaches a method for preparing an oxidic catalyst additive comprising:

(1) forming a slurry mixture consisting of:

(a) an aluminum compound (oxide suspension or nitrate);

(b) a magnesium compound (oxide suspension or nitrate); and

(c) $LnCu_{0.4}Mn_{0.6}O_3$ suspension where Ln is mainly La, Pr, and Nd;

(2) calcining the slurry mixture (see Example 1, Col 11, Line 35 to Col 12, Line 37).

Where a single prior art reference teaches all of the limitations of a claim, the claim is anticipated and unpatentable. Here, Dieckmann teaches forming a mixture of a trivalent metal compound(Al2O3), a divalent metal compound (MgO), and compound

which is one or more compounds selected from the group consisting of rare earth metal compound, phosphorus compounds, and transition metal compounds ($LaCu_{0.4}Mn_{0.6}O_3$).

Regarding Claim 2, Dieckmann further teaches a method where no sodium is present in the mixture and concentrated ammonium hydroxide is added to the slurry mixture (see Example 1, Col 11, Line 52 to Col 12, Line 23).

Regarding Claim 4-5, Dieckmann teaches a method where MgO is used (see Example 1, Col 11, Line 52 to Col 12, Line 23).

Regarding Claim 6-7, Dieckmann teaches a method where Al_2O_3 is used (see Example 1, Col 11, Line 52 to Col 12, Line 23).

Regarding Claim 9, Dieckmann teaches a method were $LaCu_{0.4}Mn_{0.6}O_3$ is used in the method as applied to Claim 1 (see Example 1, Col 11, Line 52 to Col 12, Line 23).

Regarding Claim 10, Dieckmann teaches a method where La, Cu, Mn were impregnated onto the

Regarding Claim 11, Dieckmann teaches a method where the catalyst contains 25% by weight $LnCu_{0.4}Mn_{0.6}O_3$ where Ln comprises La (see Example 1, Col 11, Line 52 to Col 12, Line 23).

Regarding Claim 12, Dieckmann teaches catalyst additive produced by the method as applied to Claim 1 (see Example 1, Col 11, Line 52 to Col 12, Line 37).

Claims 1, 3-7, 9-10 and are rejected under 35 U.S.C. 102(b) as being anticipated by Magnabosco et al (US Patent 5,108,979).

Magnabosco teaches a method of preparing synthetic spinel particles comprising:

(1) forming a mixture containing

(a) a compound of R^{2+}[A]

(b) a compound of R^{3+}[B]; and

(c) a compound of R^{2+}[C] or R^{3+}[D] (see Col 31, Lines 4-51)

(2) calcining the particles to produce crystals of a solid solution.

Magnabosco further teaches a preferred variation where the third metal is vanadia added directly to an alumina sol starting ingredient (see Col 31, Lines 4 to 25)

Regarding Claim 3, Magnabosco teaches that during the process the homogeneity of the magnesium and aluminum is frozen so that the particles are substantially free of discernable complex compounds of magnesium and aluminum (see Col 11, Line 1 to Col 12, Lines 64 and Col 12, Lines 19 to 64).

Regarding Claim 4-5, Magnabosco teaches a method where Mg[A] is used in the preferred process and the specific form of magnesium oxide is taught in example (see Col 29, Lines 9 to 32 and Example 1).

Regarding Claim 6-7, Magnabosco teaches a method where Al[B] is used in the preferred process and the specific form of aluminum hydroxide is taught in example (see Col 29, Lines 9 to 32 and Col 33, Lines 5 to 8).

Regarding Claim 9, Magnabosco teaches a method were vanadia is used as the third metal in the method as applied to Claim 1 (see Col 31, Lines 4 to 25).

Regarding Claim 10, Magnabosco teaches a method where the vanadia is added directly to an alumina sol starting ingredient rather than to the aluminum and magnesium reaction mixture (see Col 32, Lines 4 to 10).

Claims 1 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al (US Patent 4,598,062).

Schneider teaches a method of preparing an iron oxide-chromium oxide catalyst containing MgO comprising:

(1) mixing magnesium oxide or a precursor with a precursor stage of iron oxide-chromium oxide;

(2) said precursor stage of iron oxide-chromium oxide is a mixture of the hydroxides and/or oxide hydrates of iron and chromium;

(3) calcining the mixture (see Col 2, Line 55 to Col 3, Line 46)

Where a single prior art reference teaches all of the limitations of a claim, the claim is anticipated and unpatentable. Here, Schneider teaches forming a mixture of a trivalent metal compound(Fe), a divalent metal compound (Mg), and compound which is one or more compounds selected from the group consisting of rare earth metal compound, phosphorus compounds, and transition metal compounds (Cr).

Regarding Claim 8, Schneider teaches iron oxide or hydroxide are used in the method as applied to Claim 1 (see Col 2, Lines 62-64).

Regarding Claim 9, Schneider teaches that a chromium compound used in the method as applied to Claim 1 (see Col 2, Lines 62-64).

Claims 1, 4-7, 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US Patent 5,603,823).

Kim teaches a method for preparing a catalyst comprising:

(1) a slurry of alumina is combined with a slurry of magnesia and an La and/or Nd salt;

(2) the mixture is dried and calcined(see Col 2 Line 8 to Col 3, Line 35)

Kim further specifically teaches in example a method where the rare earth compound is La2O3 and Nd2O3 with a wt % of 24.43% Rare Earth Oxide (see Example 3).

Where a single prior art reference teaches all of the limitations of a claim, the claim is anticipated and unpatentable. Here, Kim teaches forming a mixture of a trivalent metal compound(Al2O3), a divalent metal compound (MgO), and compound

Where a claim contains language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of the claim or claim limitation.

Regarding Claim 4-7 and Claim 9, Kim teaches a process where alumina slurry is mixed with magnesia slurry and an La and/or Nd salt.

Regarding Claim 11, Kim teaches a specific example where the rare earth oxide compound has a wt% of 24.43% (see Example 3). Where a prior art reference specifically teaches an example that is a species of the genus of the claim, the claim is anticipated.

Regarding Claim 12, Kim teaches catalyst composition produced by the process comprising:

(1) a slurry of alumina is combined with a slurry of magnesia; and

(2) 10-30 parts by weight rare earth compound selected from a group consisting of La oxide, Nd oxide, and mixtures thereof;

(3) the mixture is dried and calcined(see Col 2 Line 8 to Col 3, Line 35)

Regarding Claim 13, Kim teaches a catalyst particle comprising the composition combined with binders, fillers, etc. by any conventional means (see Col 3, Line 66 to Col 4, Line 5). Kim further teaches catalyst particle containing a zeolite component (molecular sieve) (see Col 4, Lines 8 to 18).

Regarding Claim 14, Kim teaches that the composition is used as an additive particle for an FCC process (see Col 2, Lines 54 to 57)

Regarding Claim 15, Kim teaches that the composition may be combined with fillers and/or binders to form particles suitable for use in an FCC process (see Col 2, Lines 54 to 67).

Conclusion

Claims 1-15 are pending. Claim 1-15 are rejected. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL FORREST whose telephone number is (571)270-5833. The examiner can normally be reached on Monday - Thursday, 9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Mayes can be reached on (571)272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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